





Designing a speaker system is a very complex process. Electrical system, cabling, housing and its damping, resonance system - all these elements are subordinate to vibrating speaker membranes. They work together to form an integral

whole - a kind of one

unusual musical instrument.

The most important thing when designing is that the appropriate synergy of all elements creates the speakers,

that will convey the natural sound of instruments, natural atmosphere of recordings, rhythm, emotions ...

After nearly 4 years of designing, Bellatrix is the most complex the best sounding speaker I've ever built.

Prote Gotlows



The tweeter of Bellatrix speakers is a silk Scan-Speak Illuminator ring-radiator covered with a metal protective mesh. It is a version with a large damper chamber integrated with a vibration dampening system with CeraGem technology. The special subchassis construction makes the loudspeaker lean on a set of damping layers, analogous to those used in our Kepler vibrations absorbing feet.







The mid-woofer and woofer are 7-inch modified Eton Orchestra drivers with a characteristically embossed cellulose diaphragm on a rubber suspension. The solid die-cast basket is equipped with our proprietary BAD dampening system. The massive magnet system is vented and grounded. The dust cover has a shape memory - it is resistant to dents. As a result, Bellatrix does not require protective grilles.

During designing the Bellatrix cabinet, we paid a lot of attention to reducing its undesirable vibrations. To minimize vibrations transmitted from the ground and to ensure the best possible mass-stiffness ratio, the Bellatrix base is a single element made of steel. Of course, we could not miss Keplers that dampen vibrations, and the whole is completed with precisely made nuts.



# **CRC** design

The multi-layer, multi-chamber Bellatrix enclosure was designed in our proprietary CRCdesign technology. It is internally reinforced with a plywood and steel grating. A separate chamber for the tweeter has been designed. Mineral mats were used to dampen the enclosure precisely, so it was unnecessary to use other loose dampening materials. Such designed enclosure shows the richness of reverbs and spatial information while maintaining the full scale of dynamics.

## BAD ascet Accurate Dampening

The BAD system is our proprietary solution. It fights against vibrations, the effect of which is simply overlooked in the designs of loudspeakers from other companies. The precise damping of the

The precise damping of the speaker baskets contributes to a significant improvement in the dynamics, stability of the sound stage and the sense of realism of the recorded recordings.

#### CERAGEM

For the sound of Bellatrix, the reduction of undesirable vibrations is extremely important. That is why we have equipped the plinth with our custom designed Kepler vibrations absorbing feet.

The same technology reduces vibrations reaching the tweeter.

Find out more about our technologies:





Creating the Bellatrix, we spent the most time designing the crossover. The use of single ground point for all correction circuits and all internal connections significantly improves the sound of Bellatrix, improving its clarity, microdynamics and a sense of feeling the music sound natural.

### ESM inergy Storage Managemer

In order to achieve the desired sound of the speakers, in particular high resolution, micro and macro dynamics and the ability to correctly determine the position of instruments in space, we have developed a technology that allows us to plan the order of charging of individual capacitors in the crossover.

#### RFpath

Thanks to the RFpath technology, the signal from the amplifier on its way to the tweeter flows only through high-class capacitors with precisely selected values. The signal path includes neither unnecessary resistors nor voltage dividers.







Especially for Bellatrix, we designed pure copper binding posts with a specified directivity. In result, the entire signal path of Bellatrix, from the loudspeaker binding posts, through internal wiring and crossover parts, up to the transducer coils has a correctly defined directionality.



This is the most complex and advanced part of Bellatrix speakers. It has its own housing permanently attached to the main body of the speaker. During the design and construction of the crossover, SGP, ESM and RFpath technologies were used. All parts are mounted using the point-to-point method, on both sides of the multi-hole plate. The Bellatrix crossover consists of 51 top-quality components: copper Miflex KFPM-1, aluminum Jantzen Audio Alumen, foil Miflex MKP-10, Jantzen Audio Z-Superior and **Z-Standard** capacitors; Superes metallized non-inductive resistors, precision carbon resistors in correction circuits and cotton-insulated OFC coils. Solder connections are lead-free. The full repeatability of subsequent copies is ensured by multi-stage measurement control of individual elements and all of connections.

We wanted Bellatrix to be modern. We used materials with the textures of brushed metal, carbon braid, and the side slats are finished with an elegant, ribbed fabric covered with Teflon. We also took care of ecology - our new materials, adhesives and varnishes allowed us to reduce the consumption of organic solvents even up to 80%!!!



MOCCA is a combination of warm color of coffee with milk with raw and frosty shades of gray. The whole makes MOCCA perfect for rooms decorated in a Scandinavian style. The grains that are felt to the touch additionally emphasize the naturalness of the wood. The cool, frosty, unique finish effect has been achieved thanks to the minimizing of the yellow shades so characteristic of raw wood. The surface is satin finished, it diffuses light beautifully, giving the impression of velvety.

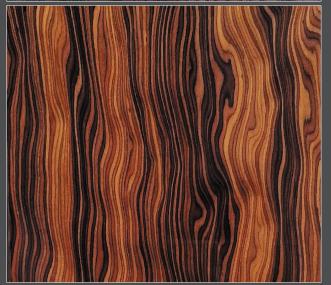
**SMOKE** is a noble color, a combination of a range of colors ranging from graphite and gray, through shades of navy blue with purple accents, and ending with dark, deep chocolate brown. This combination of colors makes Bellatrix fit both modern and more classic interiors. The multi-colored finish gives the effect of a smoky, "touched" with fire, not fully defined color of the wood. The texture showing the natural grain of the wood adds nobility. The surface is satin finished, it diffuses light beautifully, giving the impression of velvety.

**SNAKEWOOD** is a luxurious finish. Over 10 layers of hand-polished varnish create an exclusive, almost mirror-like surface. The unique pattern of the veneer is defined by winding vertical stripes in brown colors, beautifully changing in the light. SNAKEWOOD is a limited edition, only 10 pairs of Bellatrix will be made in this finish.

Choose the best finish for YOU!

















# Bellatrix

TECHNICAL DATA

Impedance:  $4\Omega$ 

Efficiency: 88dB

Frequency responce: 35Hz-40kHz

Recommended listening room area:

16-40m<sup>2</sup>

Recommender amplifier power: 10-160W

Speaker to amplifier accommodation time:

~48 hours

Run in time period: ~500 hours

Net weight: 29kg

Shipping weight: 2x34kg

Packaging dimensions (cm): 2x 132x46x46

2,5 drożny, bass-reflex/TQWT System:

Woofer/Midwoofer:2x 7" ETON Orchestra Tweeter: 1x 1" Scan-Speak Illuminator

Internal wiring:

**Divine Acoustics HALLEY** 

Binding posts:

**Divine Acoustics** single, pure copper

Floor separation:

**Divine Acoustics KEPLER** 

Crossover:

Treble: twin-path 2<sup>nd</sup> order slope, coil compensation, cut-off freq. ~2,9kHz Midbass: elliptical 1st order slope, coil and baffle-step compensations, cut-off freq.

~2,9kHz

Designed and handcrafted in Poland

Please contact your dealer

Join us!







